

Homework #5

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1. Derive the transfer function $E_o(s)/E_i(s)$ for the following operational-amplifier circuits.
 2. Assuming zero initial conditions, what is the system output for the following input signals:
 - $e_i(t) = 10 \cos(2000\pi t)u(t)$
 - $e_i(t) = e^{-5t} \sin(1000\pi t + \pi/4)u(t)$

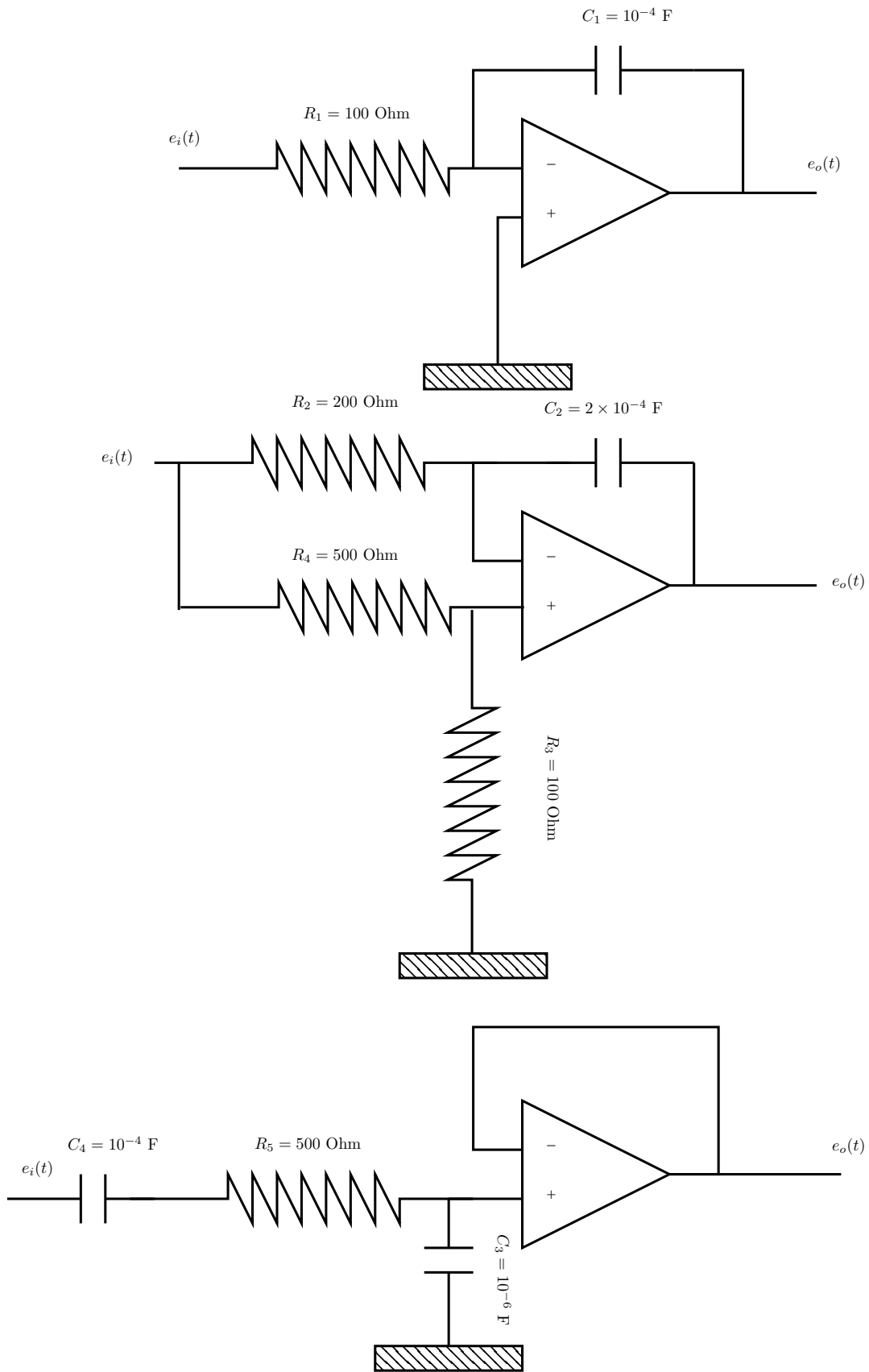


Figure 1: Operational Amplifier Circuits